

PROPOSAL FOR SETTING UP A PROCESSING PLANT IN GAJAPATI DISTRICT, ORISSA

PROFORMA FOR SUBMISSION OF PROJECT PROPOSALS UNDER SCIENCE AND SOCIETY PROGRAMME OF D S T (TO BE FILLED BY APPLICANT)

A. EXECUTIVE SUMMARY (to be given on separate page)

Ref. No.
(to be filled by DST)

The proposed project area is coming under Gajapati District of Orissa State situated in the southern hemisphere, adjacent to Andhra Pradesh mainly inhabited by the primitive tribes covering more than 50 percent of the total population coverage with a geographical area of 3850 SQ.Km. The physiographic nature of the area witnesses a favorable topography and climatic conditions where the Tribal and SC farmers are growing vegetables and other high value horticulture Crops like pineapple, orange, jackfruit, lemon, guava, banana etc., apart from turmeric, ginger and other cereal crops for their livelihood.

In spite of this access to rich natural resources, the tribes of this area are facing the inimical troubles of socio-economic distortions and physically distanced from the main markets without any proper linkage. The people, basically the tribal women sell it to the traders, mainly the SCs who in turn sell it to the middle men being exploited. Thus, it is evident that, the tribes lay at the most disadvantaged end of a long marketing chain. Rather the produce reaches the rural market and become mostly target of distress sale. Since most of these items are perishable, has to dispose in throw away price. The result emerges that after profound labour cannot fetch ever sustainable economic gain thus remain trapped within below poverty line.

Studying the grim situation and dire consequences faced by the target tribes in the proposed project area, **Centre for Community Development (CCD)** intervened in the area to create an appropriate base for the socio-economic development of the marginalized and weaker sections of the community mainly focusing the priority on the specific science and technology inputs by means of establishing the entrepreneurship development units transferring the technology to the people and to provide the base of livelihood support, promoting and upgrading the skills for the appropriate utilization of the resources in a sustainable manner.

1. **Project Title** :

“Low Cost preservation and processing of the locally available horticulture produces by the tribal women SHGs of Gajapati District”.

2. **Objectives** :

- *To promote and improve the socio-economic life-style of the Tribal (ST) and Marginalized (SC) women generating the gainful employment opportunities downsizing the technology, promoting research, sustainable development.*
- *To upgrade the traditional skills for the appropriate utilization of locally available horticulture produces.*
- *To provide the means and ends to the women in access and control over the horticulture resources through value addition initiatives for sustainable income source.*
- *To design, improve and preserve the quality of products being endowed by tribal women through scientific processing and technology transfer for value addition.*
- *To enhance the involvement of the tribal women in low cost preservation, processing and packaging of the finished horticulture produces linking them to the market.*

3. **Work Plan (highlighting science and technology inputs in 250 words)**

The work plan of the project will basically be based on the **value addition, economic generation and self-employment opportunities**. Initially, the collection of the raw materials will entrust to the SHGs, the growers and gatherers for collection. Then after the collection of the materials shall be stored at the satellites units which lastly be linked up with the central processing unit located at the District HQ at Paralakhemundi . In the central processing unit, the technologies and equipments of evaporation technology, dehydration technology, quality control etc., will be prevailed. The evaporation technology is being using steam generated by mini-boiler for heating and boiling, which is low risk heating for food products by stream jacketed kettle. For juicing, pulping and grinding, the simple and appropriate machinery, for packaging purpose, the crown corking machine, PP and RO cap sealing machine, embossing machine, for quality control, testing equipment etc., will be used. For evaporation and dehydration technology through steam and solar heat, mini-boiler and kettle, solar drier and solar cooker will be focused.

Major threats on osmo dehydration of pineapple pieces and increasing longevity / lifespan of pineapple without any chemical applications.

In the satellite units, the hand operated equipments as solar drier, hand pounding apparatus, drying mat for compressing, fruit cubes etc., will be maintained. The technology will be made available by hand on training to SHG members as a part of technology transfer. The training to the master trainers, technology transfer and consultancy will be imparted by CTD as and when required. The training to the selected master trainers and leading members of the SHGs four from each SHG will be held at CTD field station, Dheradun for 15 days and the second training for product development will be organized at the Central processing unit for 10 days.

4. Project Duration - 2 (Two) Years

5. Project Area (Block and villages to be covered)

The project area is coming under 3 blocks of Gajapati District namely, Gumma, Rayagada and R. Udayagiri covering 115 tribal villages.

6. Budget Summary

The budget is designed for the holistic socio-economic benefit of 240 women SHGs promoted in the proposed project blocks by the organization. The budget is divided into 2 phases first is Capital (Non-Recurring) and second is Recurring, Contingency and Trainings.

The Non-Recurring is meant for the establishment of the food processing unit completely designed as per the norms of the government for 2 years.

CCD - the project implementing agency agreed to borne 25 percent of the total budget through landed property, infrastructure, contribution, office management, man power and equipment with the statutory sureties. The details of the budget for 2 years is mentioned in **E. column** separately.

7. Name of PI, Co-PI and Organization

Name of the PI : Mr. A. Jagannadha Raju, Secretary, CCD

Name of the Co-PI : Mr. Dhanunjaya Patnaik, Coordinator, CCD

B. IDENTIFICATION

1. Project title :

Low Cost preservation and processing of the locally available horticulture produces by the tribal women SHGs of Gajapati District.

2. Programme applied for :

STAWS (S & T Application for Weaker Sections)

3. Details regarding :

(a) Profile of Project area

The proposed project area is coming under the geographic scale up of Gajapati District located at the southern hemisphere of the State of Orissa – most backward District and ranked as No. 2 by the Planning and Coordination Deptt., Govt. of India, for its socio-economic backwardness and stagnation from all corners. Gajapati District is divided into 7 community development blocks namely 1. Gumma, 2. Rayagaga, 3. R. Udayagiri, 4. Nuagada, 5. Mohona, 6. Kasinagar and 7. Paralakhemundi(Gosani) – 5 blocks (1 – 5) are coming under the scheduled blocks – completely meant for the tribal development and the rest 2 blocks (6 -7) are coming under the non-scheduled blocks or the plain-blocks where the tribes and SC people are also inhabiting.

The District is mostly dominated by tribal community covering around 50 percent of total population and encircled with the great Mahendragiri and Devgiri Hill ranges belongs to eastern ghats with a bountiful natural resources, damping climate with ecological balance and also the agro-climatic zones purports to be suit for the ample production of horticulture crops with better irrigation potential and topography.

The proposed project area is coming under 3 blocks namely, Gumma, Rayagada and R.Udayagiri covering 115 tribal villages which are periphery to each other with ample productivity of horticulture crops like orange, pineapple, jackfruit, guava, lemon, mahua, turmeric, chilly, ginger, tamarind, mango, cashewnut, papaya, banana and other NTFPs. The connectivity of the blocks is also centrifugal and centripetal to each other and the communication system is accessible / transportable.

In order to promote the livelihood initiatives of the target community (**both SCs/STs**) in the proposed project area, basically this project has been designed to extend the socio-economic benefit to 240 women SHGs, totaling to 3662 beneficiaries generating the employment opportunities enhancing their income potential and growth, developing the skills, upgrading the traditional skills with innovative science and technology development initiatives.

In order to avoid the inconvenience made in times of collection of horticulture crops, the proposed project area is divided into 3 zones namely, Zone I. Rayagada, Zone II. R.Udayagiri, Zone III. Gumma and on the basis of the identified zones, the activities and resources on prime produce are also be collected separately, in turn to linking up with the Central processing unit located at Paralakhemundi - the District HQ for tangible and effective marketing tie-up.

(b) Target Population (SC, ST, Women)

Block	SC			ST			Total Population of the Block		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Gumma	1214	1220	2434	18596	20830	39426	26375	28716	55091
R.Udayagiri	756	743	1499	15095	15173	30268	22271	22107	44378
Rayagada	813	792	1605	21222	22706	43928	27462	28986	56448
Total	2783	2755	5538	54913	68709	113622	76108	79809	155917

(c) Direct Beneficiaries : **3662**
(both SC and ST Women beneficiaries)

4. Duration Number of months : **24 Months (2 calendar years)**

5. Total Cost : **Rs. 15,91,000/-**

6.1 Name of Principal Investigator : **Mr. A. Jagannadha Raju**

6.2. Designation : **Secretary / Signatory**

6.3. Department : **Social Development Sector – NGO**

6.4. Sex (M/F) : **Male**

6.5. Date of Birth : **09-10-1953**

6.6 Organisation/Inst. Name : **Centre for Community Development**

6.7. Address : **Near Check Post, Pathapatnam Road
Paralakhemundi, Gajapati District
Orissa
Telephone : 06815 – 222516
Fax : 06815 – 224094
Email : ccdevraju@rediffmail.com**

1.1 Name of Co-Investigator : **Mr. Dhanjunjaya Patnaik**
1.2 Designation : **Coordinator, CCD**
1.3 Department : **Centre for Community Development**
7.4 Sex (M/F) : **Male**
7.5. Date of Birth : **21-07-1972**
7.6 Organisation/Inst. Name : **Centre for Community Development**
7.7 Address : **CCD, Paralakhemundi**
Pin - 761 200
Telephone : 06518 - 222516
Fax : 06815 - 224094
Email : ccdevraju@rediffmail.com

2. Capability of the Organisation

(a) Expertise available with the group

The organization is having 13 years concerted experience in social sector keeping in touch with the community maintaining the pertinacious relationship with the community, other cross sections as well as the PRI members, starting from grass root level to District level.

CCD is also having massive working force with committed sprit and resourcefulness. It is also having the good social mobilizations skills in mobilizing the community forming and promoting the self-help groups, imparting the trainings on skill development of the members. CCD also maintains the tie-up with the banks and others corporal sectors for the economic empowerment of the groups. In most of the groups there are the skilled experts in various sectors of entrepreneurship development, after getting the consecutive trainings from CCD.

(b) Facilities/Assets/Equipments available:

CCD is a spacious office room and resource training centre in a congenial and tranquil atmosphere. It is also having the landed property of an extent of 12 acres dedicated for the community development, having ample infrastructure and equipment support from all corners, further to avoid the inconveniences to meet the project needs.

(c) List of on-going and completed projects by the group giving the following details

Title of the Project	Year of Start and completion	Project Cost	Name of the Sponsoring organization
Rural Development Project	1996-97 to till date	1,49,14,297.00	ACTION AID
Sustainable livelihood promotion of Soura Tribes protecting and restoring the Natural Resources with effective management	1995-96 to till date	60,91,279.00	ICNRMPO
Strengthening of NRM and Livelihood Empowerment of Tribal Women in	2000-01 to till date	14,06,787.00	UNDP/IMAGE

Rayagada Block.			
Crop Post Harvesting Program	2002-03 to till date	50,000.00	IDE (I)
Integrated Nutrition and Health Program	1999-2000 to till date	19,76,312.00	CARE-INDIA
Integrated Tribal Development	1995-2001	5,66,000.00	IGSSS
Sustainable development of the Soura Tribes in Paralakhemundi	2001-2003	11,58,000.00	MISEREOR
Reproductive Child and Mother Health	2000 to till date	3,43,150.00	RCH(OVHA)
Nursery Raising	1997-2002	2,51,075.00	DRDA
Health Camps	1997-1999	11,998.00	ZSS
Food security Study in Rayagada Block of Gajapati District	1999-2000	1,17,000.00	VIKASHA
Eye Camps	2000-01	28,200.00	DBCS
Disability Campaign and UBR	2001-2002	1,45,197.00	Disability and UBR
Accelerated Low Female Literacy Program, Gajapati	2003 – Continuing	4,87,800.00	Minister of HRD and Elementary Education, Govt. of India

C. PROFORMA FOR BIO-DATA OF INVESTIGATORS (P.I. & CO-P.I.)

A. Name : Mr. A. Jagannadha Raju
B. Date of Birth : 09-10-1953
C. Institution : Centre for Community Development (CCD)
D. Whether belongs to SC/ST : General
E. Academic and professional career:
Academic career : M.A., Public Administration, PG-DRD(IGNOU)
Professional career : Having 26 years of concerted experience in social development sectors particularly serving the tribal communities of Gajapati District, having good social mobilization skills, expert in tribal language and vernacular language.

F. Award/Prize/Certificate etc. : won by the investigator : **Jayaprakas Narayan Samman Award** in the year 2000-01 for the unabated contribution in the Field of social service in the State of Orissa.

Prakrutimitra and India Priyadarshani Vriksha Mitra Award at State and National Level accorded by the Govt. of Orissa and Govt. of India, Forest and Environment Deptt., for the relentless work done in protecting and nurturing the nature, environment and for the wasteland development in Gajapati District – particularly in the operation area of CCD.

G. Publication (Numbers only) :

Books : 2 Research Papers, reports : 5 General articles : 4
Patents : 2 Others (please specify) : Soura Dialects - 2

H. (1) List of completed and on going projects

Sl. No	Title of Project	Duration From to till date	Total Cost	Funding Agency
1	Rural Development Project	1996-97 to till date	1,49,14,297.00	ACTION AID
2	Sustainable livelihood promotion of Soura Tribes protecting and restoring the Natural Resources with effective management	1995-96 to till date	60,91,279.00	ICNRMPO
3	Strengthening of NRM and Livelihood Empowerment of Tribal Women in Rayagada Block.	2000-01 to till date	14,06,787.00	UNDP/IMAGE
4	Crop Post Harvesting Program	2002-03 to till date	50,000.00	IDE (I)
5	Integrated Nutrition and Health Program	1999-2000 to till date	19,76,312.00	CARE-INDIA

6	Integrated Tribal Development	1995-2001	5,66,000.00	IGSSS
7	Sustainable development of the Soura Tribes in Paralakhemundi	2001-2003	11,58,000.00	MISEREOR
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12	Eye Camps	2000-01	28,200.00	DBCS
13	Disability Campaign and UBR	2001-2002	1,45,197.00	Disability and UBR
14	Accelerated Low Female Literacy Program, Gajapati	2003 – Continuing	4,87,800.00	Minister of HRD and Elementary Education, Govt. of India

(2) **List of projects submitted**

Sl. No	Title of the project	Name of Organisation	Status
1	Solid Waste Management	Housing and Urban Department, Govt. of Orissa	Under Process

D. TECHNICAL DETAILS

1. Description of the problem and its priority as perceived by the people including socio-economic status of the area (300 words)

As the proposed project area is coming under the most backward district and primarily inhabited by the primitive tribes in the hilly terrain belts, undulating landscape and sparsely inhabited population, very agglomerated in nature, inaccessible area, exploitation, mount-debt burdens, inappropriate resource utilization etc., many are landless the baffling situations and issues in the proposed project area, mainly the horticulture products. Lack of appropriate market linkages, low price rate for high productivity of middle men, exploitation etc. are the common bottlenecks in the project area as perceived by the people. The excessive production during the peak season leading to drop in the prices in the market due to which, the farmers some times have to sell their produces at distress price. Distress sale of produce eventually weakens the bargaining strength of the farmers where as in other hands. There is a limited linkage to the potential market which offers very morose price rate. Simultaneously, there are the inimical constraints in connection with the value addition of the horticulture crops like plucking, cleaning, grading and sorting etc., which are normally perceived by the people of the proposed project area. Apart from this, there are no entrepreneurship development initiatives or the expertise in a particular sector and also lack of knowledge in storing and procurement of the grains / crops. All these inappropriate priorities and the drawbacks are the sole cause for the socio-economic potential and growth of the people in a sustainable manner rather dispersing their identity from the proposed project area in a flow of migration towards other portions of the State.

2. Suggested solution(s) and alternatives with anticipated physical and financial benefits. Please also state solutions attempted by your institution and others to solve the problem(s) (200 words)

Creating awareness for the need and benefit of the value addition, development linkages with agro-processing units and marketing channels for obtaining better returns from the crop etc., are the alternatives and suggestions. Simultaneously, to anticipate the physical and financial benefits, new forms of value addition such as packaging and branding can be contacted with the research and technology development institutions other innovative science and technology development institutes within the country or abroad. Such ventures will help in getting better returns from the primary and secondary parts from the crops. Apart from this, the training on post crop harvesting technology needs to be imparted for example, production and marketing of different finished products, can be promoted, so as to anticipate the physical and financial benefits. Attempts should also be made at local level for value addition which can be sold at local markets also.

CCD has initiated the dynamic steps maintaining the good bank linkages, marketing tie-ups, establishing the rapport with the marketing agencies like DRDA, ORMAS, DIC and other popular market agencies and it has taken the initiation to impart the skill development trainings to the SHGs inviting the experts for food processing training. Steps were also taken through the Rural Entrepreneurship Development Program (REDP) maintaining and getting the support from NABARD as a commendable transformation for the rural technology and development. Apart from the linkage partnership of OUAT for value additions and IDE(I) in exploring the market avenues.

3. Objectives of the project (Please make these brief and preferably quantifiable. Referees are asked to comment on these and they will form part of the sanction, if project is approved)

- *To promote and improve the socio-economic life-style of the Tribal (ST) and Marginalized (SC) women generating the gainful employment opportunities downsizing the technology, promoting research, sustainable development.*
- *To upgrade the traditional skills for the appropriate utilization of locally available horticulture produces.*
- *To provide the means and ends to the women in access and control over the horticulture resources through value addition initiatives for sustainable income source.*
- *To design, improve and preserve the quality of products being endowed by tribal women through scientific processing and technology transfer for value addition.*
- *To enhance the involvement of the tribal women in low cost preservation, processing and packaging of the finished horticulture produces linking them to the market.*

4. Report of preliminary investigation conducted (if any) (300 words)

Earmarking the dire consequences and baffling issues of the proposed project area already a preliminary investigation-cum-research study has been conducted by CCD in consultation with the IDE(India), Bhubaneswar, with regards to the crop post harvesting situations, backdrops and the drawbacks faced by the tribal farmers in the proposed project area, mainly the intricacy of the problems faced by the women community while selling the horticulture crops in the local markets merely falling in the hands of the local venders and middle men as well as the solutions were also chalked out in the study. Again another study

on low cost processing and preservation of horticultural produce through participation of tribal and SC women SHG members of Gajapati District was made in details apparently describing and denoting the issues faced by the tribal and SC women and the critical gaps, major constraints in relation to the marketing and the sustainable promotion of livelihood initiatives, the technology transfer vis-à-vis the tribal and SC women and the solutions were given for appropriate value addition options and on food processing of the crops chalking out the opportunities, describing the situational analysis of the District and the project area and also the socio-economic profile of the people in the proposed project area etc., were narrated in the study.

The research study was compiled by Mr. C.C.Sirkar, consultant-cum-expert, CTD, New Delhi, during his recent visit to CCD. Basing on the research study further to create the base of alternative livelihood promotion initiatives, the steps were taken by IDE(I) in a demonstrative manner linking up with the expertise scientific and research oriented institutes for the value addition of the horticulture crops after the post harvesting. Apart from this, the clear-cut solutions were also chalked out after the proper identification of the issues in the proposed project area making a tangible link up and tie up with other marketing agencies, entrepreneurship development institutes.

5. Implementation strategy covering aspects such as:

(a) Information about local economy, relevant artisanal skills, market availability and link up, etc.

For the cascading effect and smooth implementation of the program in the proposed project area, the Centre has initiated its strategic plan of action in a better conducive way to minimize the stableness of the local economy imprinting the values on the access and control over the resources like the groves, usufructs as the domains of pristine years by the tribes and SCs in the project area. It is planned to initiate the innovative approach of osmo dehydration in downsizing technology for the value addition of the horticulture crops providing the better marketing prices and benefits to the people imparting the skill development training and entrepreneurship techniques. Simultaneously, due adherence has also been taken by the Centre selecting and identifying the appropriate market availability, exploring the details of the marketing system say to the existence of the rural haats, fairs within the parameter of the proposed project area and has also taken the initiation for the better market link up and tie up, ultimately providing the solution for better economic standardization of the poor tribal farmers.

(b) S & T component of the project

The PI is ensuring the following specialized components of science and technology while to implement the project in the area.

Maintaining the well defined partnership with the scientific and research institutions for the engagement in the project. Due attention may be preferred for the better utilization of the scientific devices and instruments while running the food processing unit. The entire project will be based on the appropriate science and technology guidance and supervision of the experts.

(c) **Linkages with S&T institutions/resource persons/R&D agencies for technical back up in following the format: -**

Name of scientist	Area of specialization
Dr. Swain, OUAT, DEAN, BBSR	Crop post Harvesting programme
Dr. M. Khalid Khan, , OUAT, BBSR	crop post harvest technology
Mr. C.C.Sirkar, Consultant, CTD, Delhi	R & D and food processing-consultant
Dr. Nihar Ranjan Sahu, OUAT, BBSR	Appropriate food processing

(d) **Details of the project implementation site including details of relevant GIS data employed (please indicate source)**

The project implementation site is divided into 3 zones. The zone-I is coming under Rayagada, Zone-II is under R.Udayagiri and Zone-III is under Gumma Block of the District. On the basis of the identified zones, the identified resources are also separately in the zones in zone wise pie chart given below :

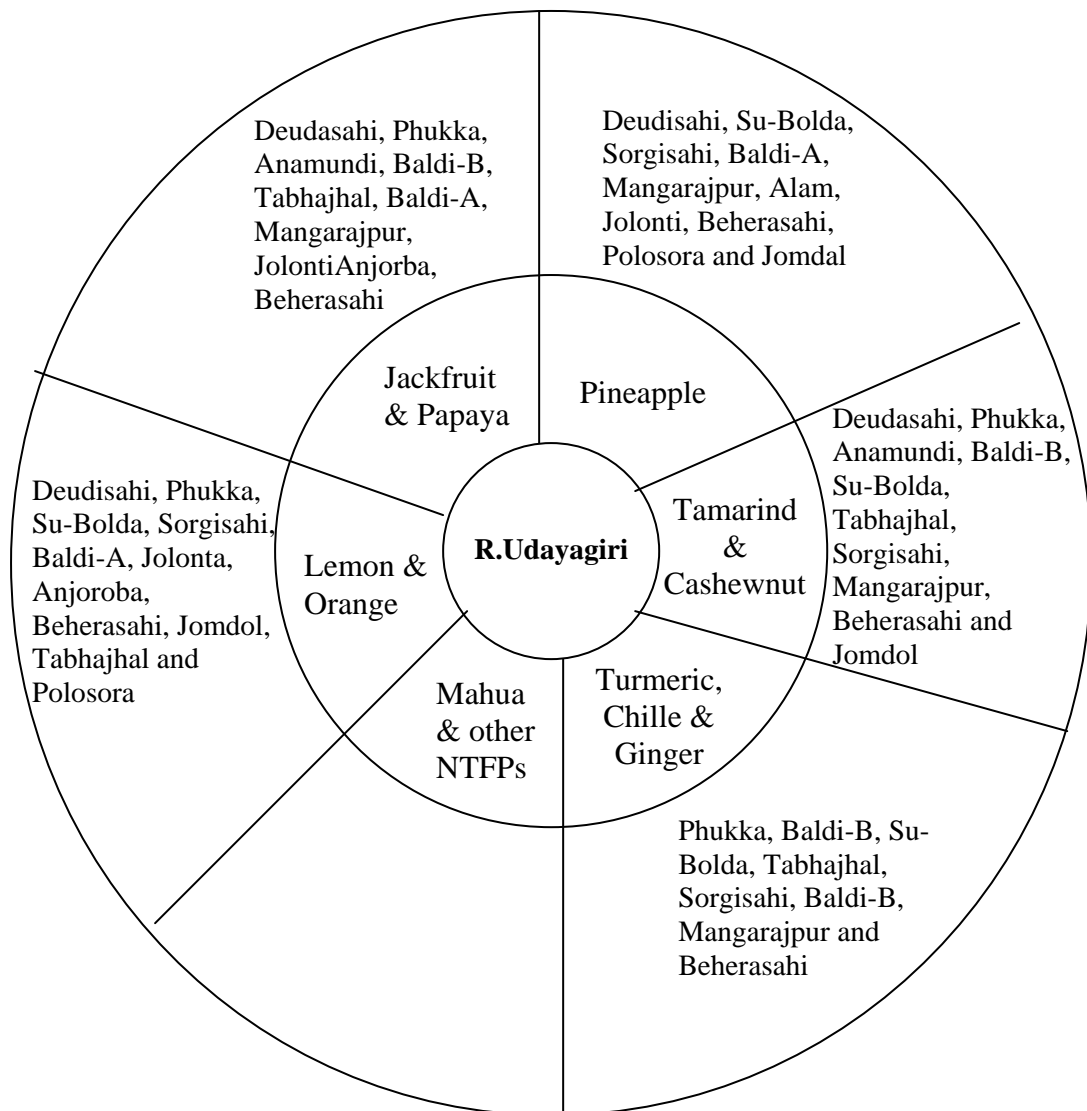
Zone – I : Rayagada

Prime produces in villages-cum-collection Centres



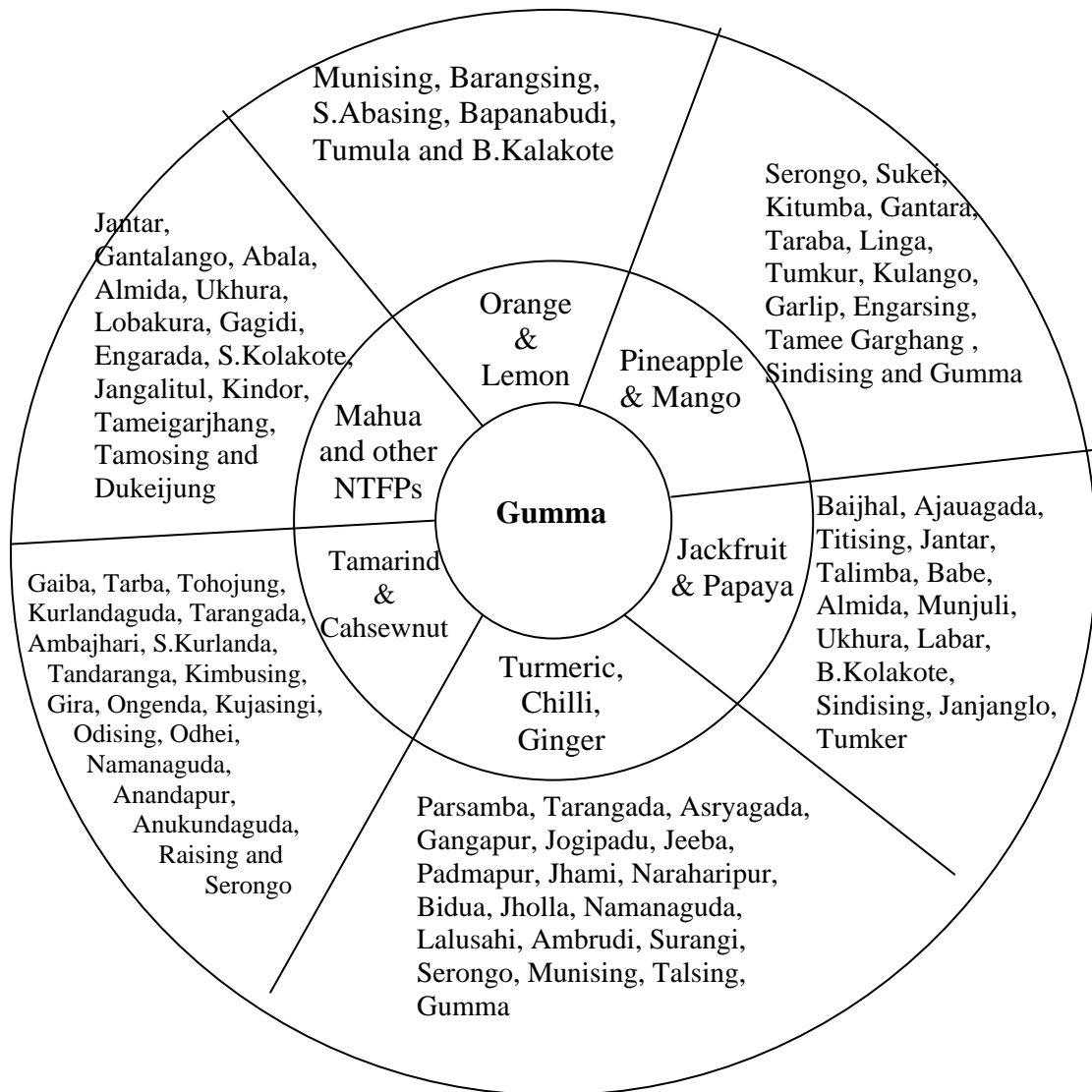
Zone – II : R. Udayagiri

Prime Produce in villages-cum-collection Centres



Zone – III : Gumma

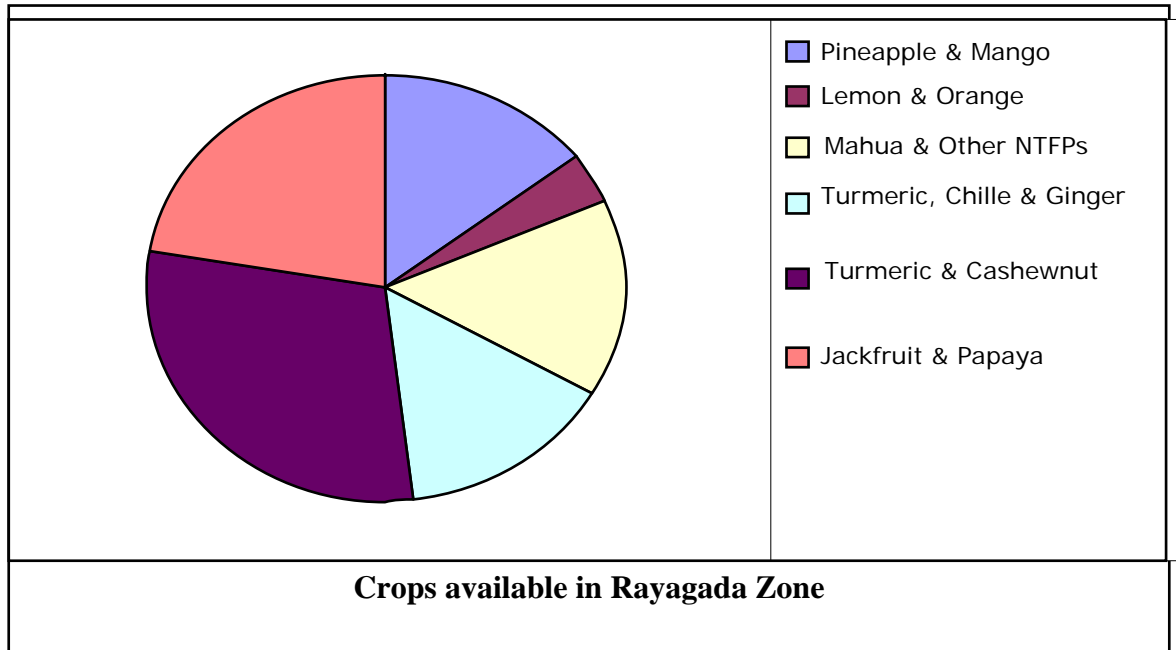
Prime Produce in villages-cum-collection Centres



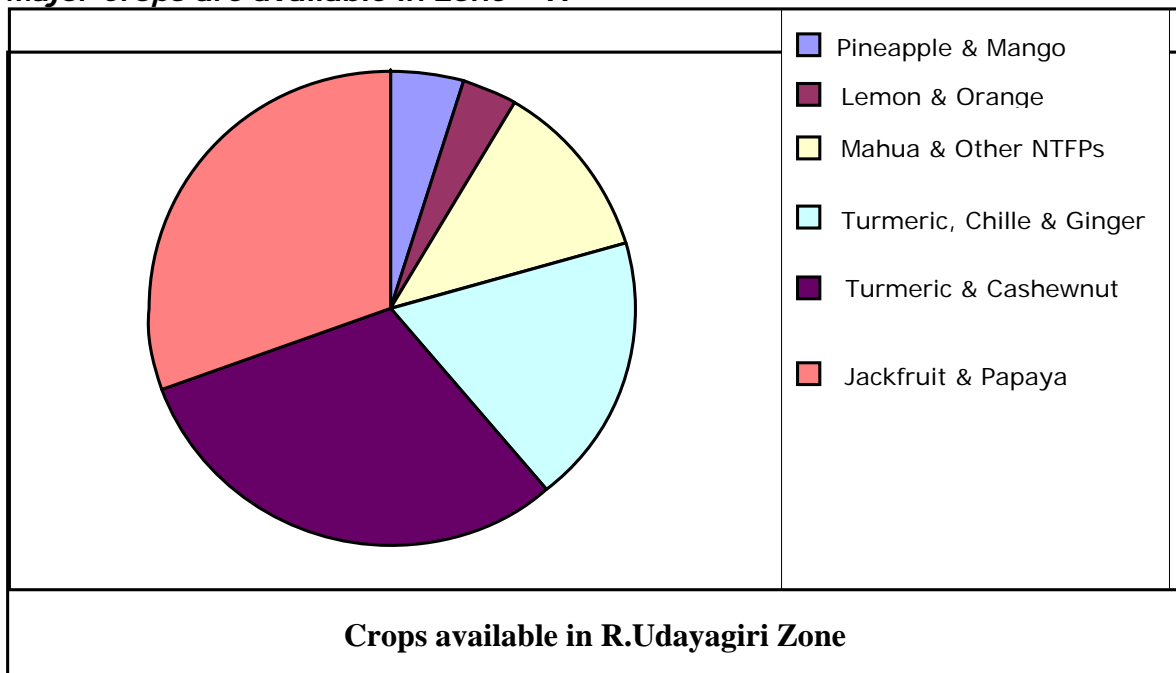
Production in Metric Ton

Cluster	Pineapple & Mango	Lemon & Orange	Mahua & Other NTFPs	Turmeric, Chille & Ginger	Tamarind & Cashewnut	Jackfruit & Papaya
Zone – I	2000	500	2000	2000	4000	3000
Zone – II	400	300	1000	1500	2500	2500
Zone – III	500	200	700	1000	5000	2500

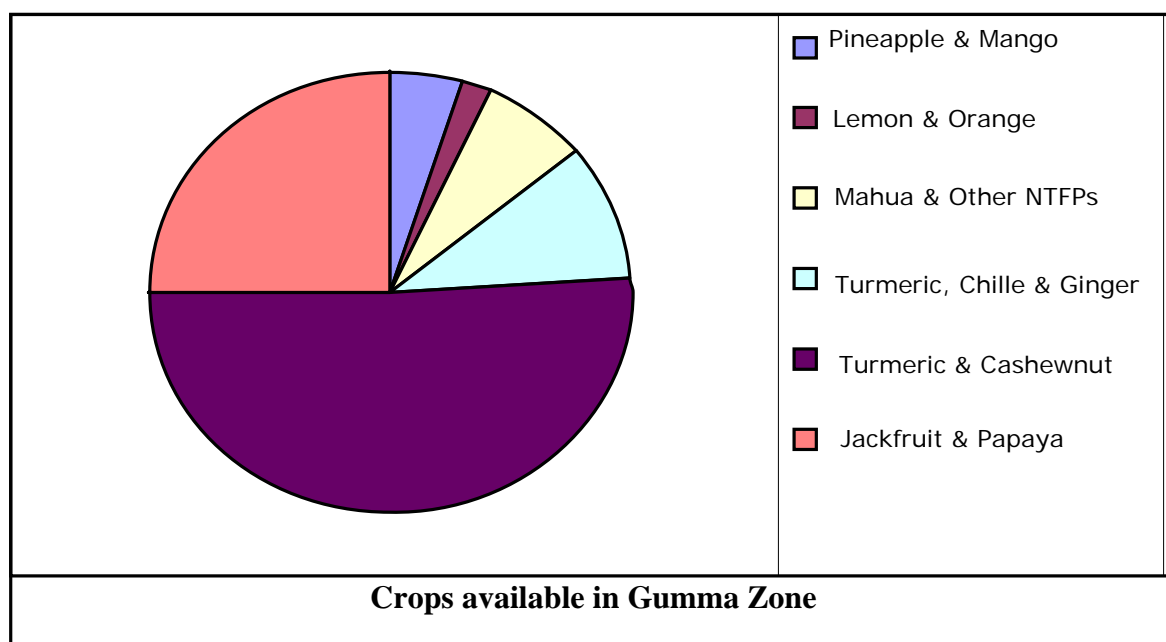
Major Crops available in Zone - I



Major Crops are available in Zone – II



Major Crop are available in Zone – III



Prime produce – Month and Price at Village Market

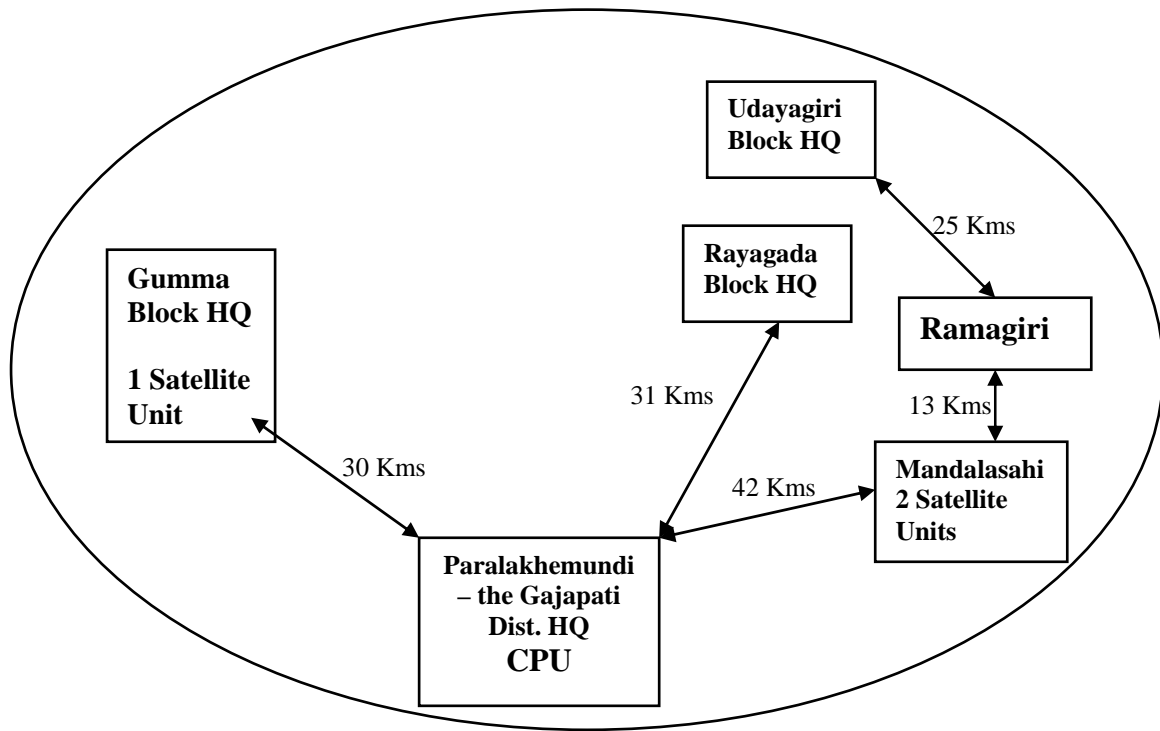
Month	Products	Arrival	Price per Quintal
May – July	Pineapple	At Village Market	250
March – July	Tamarind	- do -	350
May – July	Jackfruit (Green)	- do -	200
July – Sept	Lemon	- do -	30 per 100 nos.
April – June	Turmeric	- do -	Raw material – 2000
Feb – March	Mahua Flower	- do -	300
Aug – Sept	Ginger	- do -	1000
April – May	Cashewnut Raw	- do -	3000
	Cashew Apple	- do -	100
May – July	Papaya	- do -	250
	Chilli	- do -	500
June – Sept	Pumpkin Guard	- do -	250
Dec – Jan	Rosel (Kudrum)	- do -	250

Only 10% - 20% of market surplus will be utilized for processing in three years of time in the Central Processing Unit which will be sufficient for sustainability in economic generation.

Two Satellite units to be set up and strengthened for primary processing and feeding central processing units

Zone – I	-	Raygada Block	-	Satellite unit – I
Zone – II	-	R. Udayagiri Block		
Zone – III	-	Cluster of Gumma Block	-	Satellite unit - III

Location of Satellite units linking Central Processing Unit

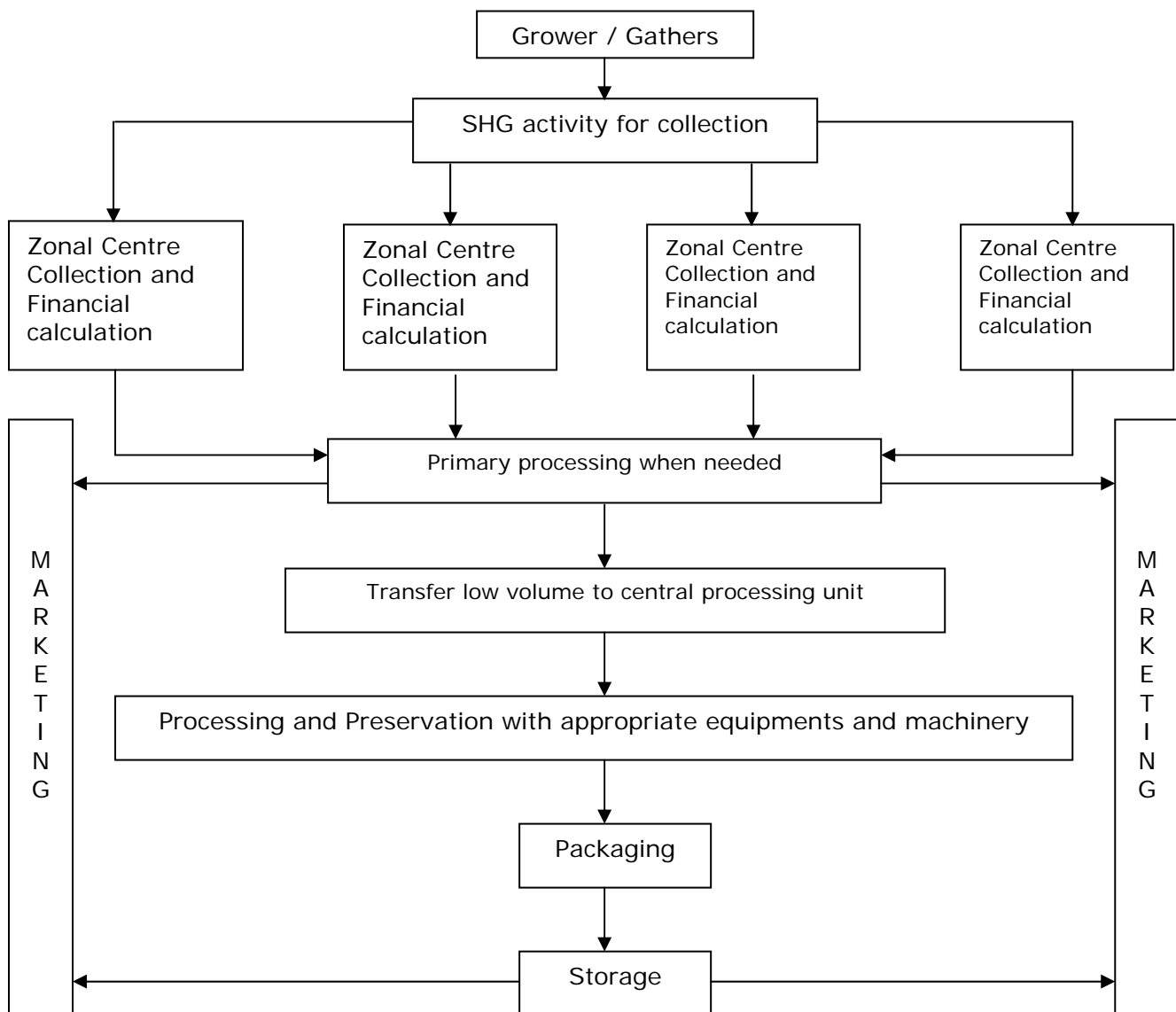


6. Work Plan :

(a) Phase wise plan of action including consultation with the target group, resource persons etc. including post project activities.

- o Raw material flow chart, calendar of availability and product envisages under the following flow chart.

Flow Chart for the Activities as



- Build up the linkages by the SHGs with community to bind up the local growers / gatherers in a chain of collection for standardized and better produces
- The **plan of action and time schedule of Activities** is designed in consultation with the target group, resource persons focusing the attentions for the post project activities under the following :

(b) Time schedule of activities giving milestones.

	0 – 120 Days	30 days	60 days	90 days
1 st year	Layout and completion of the Building	Finalizing Electric and water supply	Utilization and Trail production	Production of Selected items
	Order and fitting of the equipments	Testing of water as per FPO norm	Quality control and training	Training of technicians of product utilization, standardization, market and FPO application by technologists and consultants
	Selection Training of Master Trainers and Technicians	Trail production and training of the master trainers and lead SHG women at Central processing unit	Set up satellite units and field training of SHG members	Apply for FPO license and label for final product display
	SHG lead women	Field training of Self-Help women Group by master trainers	Market Study – product display	Set up market strategy for rural markets and city markets

Select prime product and process for final display

	Jan - April	May – Sept	Oct – Dec
2 nd year	Bulk Procurement and processing	Bulk Procurement and processing	Bulk Procurement and processing
	Product standardization Packaging Labeling and Marketing	Product standardization Packaging Labeling and Marketing	Product standardization Packaging Labeling and Marketing

7. Techno-economic viability/cost benefit analysis (to include cash flow, working capital management, pay back period etc.)

Exp – I

Raw Pineapple - @ Rs. 300/- per quintal 1
Recovery 60% - 60 Kg (Juice and Pulp)

Preparation of JAM from 40 Kg Pulp

40 KG Pulp - Check Brix
Add - Sugar 40 Kg - Boil
Add – Citric acid and pectin for JAM. Stop boiling at 68° Brix. Pack in Jamjar.

40 Kg Pulp - Rs. 200/-
40 Kg Sugar @ Rs. 16/- per Kg - Rs. 640/-
Fuel/Labour/Chemical - Rs. 100/-

Total - Rs. 940/-

Product Bulk - 75 Kg
Per Kg – ex factory bulk price - Rs. 940/75 Kg - Rs. 12.50 P

Packaging and labeling - Rs. 20/- per Kg
i.e., 32.50 in Jamjar/Kg ex factory

Can keep - Rs. 35/- per 500 Gm pack i.e., MRP

Similarly - Juice and Squash will have a value
addition – 1 : 4 times

In pickles - Value Addition is – 1 : 3 times

If properly maintain the norms of Technology standardized quality control, then for a micro industry having capacity to utilize – 200 MT per year – can be sustainable.

List of Machinery and Equipments

Location of central processing unit of Paralakhemundi – the District HQ of Gajapati of Orissa State.

Sl. No	Equipments	Specification	Quantity
1	Mini Boiler, Diesel / Biomass fired and Water Tank.	100 Kg	One
2	Steam Jacketed Kettle	50 liter	One
	Steam retort	200 liter	One
	Pulper	120kg/hr	One
	Mixer grinder	2 HP	One
	Electrical Drier	12 triage	One
	Solar drier		Four
	Purveriser or Fruit mill	2 HP	One
	Weighing Pan	20 Kg	One
	Container food grade - Carboy	50 Kg	20 Nos.
	Utensil – Stainless steel with knife, spoon, ladle etc.		Five Sets
	Wooden frame for cubing Tamarind	One Kg / 500 Gm	Four Set
	Heat seal machine for pouch	Pouch sealing	Three
	Crown corking machine		Two
	PPRO cap sealing machine		Two
	Quality Control		
	i. Refracto meter	0 – 30 30 – 70	One set One set
	ii. Physical and chemical balance		One set
	iii. Glassware and apparatus		One set
	iv. small distilled water plant		One
	v. PH meter (Digital)		One

The working capital management specially mentioned in the budget as recurring is meant for two years with the involvement of master trainer-cum-technician, trained women assistant and semi skilled helpers for the smooth operation of the central processing unit with the effective use of the chemicals, testing quality control, bulk container, packaging materials, casual labour, energy, water and transportation etc.

The pay back period for the project is not applicable because it is totally grant oriented project appertained for the sustainable socio-economic growth of the SHG members. The input cost for the raw material shall be borne out of their own contribution.

8. Comment on the likely impact on adjoining areas/society.

The establishment of the food processing unit would likely to be an impact on the adjoining areas/society and would stand to be an exemplary replica to change the life-style of the indigent and needy SC/ST community encouraging their fullest participation and involvement in the food process unit generating the employment opportunities, mainly during the lean period, as to say also in whole of the year, providing the best bases for the economic livelihood and enhancement of income source to lead a better life in the society. The project also would stand as a replica attracting the other women folk of the district as well as stand as a demonstrative unit in the eyes of the district administration, DIC, DRDA, DSWO and other community development agencies, to initiate the similar process in the other corners of the district as per the suit and project availability, in fulfilling the needs and complying the dire economic consequences of the people, say the tarnishing and grim economic reality of the district. Above all to say, the impact of the unit would stand as an ideal nomenclature for the women empowerment process.

9. Comment on the possibilities of the activity becoming self-sustainable.

There is a conformity on the possibilities of the activity become self-sustainable because the establishment of the food processing unit has been initiated in the project area basing on the proper identification, initiating the baseline survey, interacting with the community and interfacing with the line departments of the district, to ensure the establishment of the unit in the said locality after the appropriate selection of the focal sites linking up with the satellite units separately in three triangular areas of the block, finally linking up to supply the raw materials to the unit, whole over the year getting the engagement to continue the same initiation or the activity, which appropriately would be a self-sustainable.

10. Suggested parameters for monitoring effectiveness of intervention during and after the project.

For the effective implementation of the project, the following parameters have been adopted during and after the project.

Internal monitoring

The internal monitoring technique is being maintained by the project implementing agency as well as members of the SHGs for the smooth running of the food processing unit. The responsibility of the collection of the raw materials from the satellite units shall also be monitored by the PIA (CCD) and SHGs of the concerned area for the procurement of the horticulture crops in times of production for its arrival at the Central processing unit.

External monitoring

The project consultant and technical experts of the grantee organization and the experts from Centre for Technology development (CTD) and IDE (I) from time to time, may also monitor over the smooth running of the units providing the technical guidelines support to the beneficiaries.

After the completion of the project, the entire process of the food processing unit would absolutely be handed over to the beneficiaries, indirectly under the supervision and monitoring of the project implementing agency (CCD) until their expertise in the sector concern.

E. BUDGET

BUDGET ESTIMATES : SUMMARY
(In Rupees)

Item	Budget		
	Ist year	II nd year	Total
A. Recurring			
1. Man Power	78,000.00	78,000.00	1,56,000.00
2. Consumables	40,000.00	45,000.00	85,000.00
3. Travel	25,000.00	35,000.00	60,000.00
4. Contingencies	25,000.00	65,000.00	90,000.00
5. Institutional Overheads	50,000.00	50,000.00	1,00,000.00
Total	2,18,000.00	2,73,000.00	4,91,000.00

A. Recurring : 4,91,000.00

B. Non-Recurring : 11,00,000.00
Permanent Equipment

Grand Total (A+B) : 15,91,000.00

Organization Contribution (25% of Total) : 3,97,750

Total Budget Requested : 11,93,250.00

Financial Year : April to March

Count six months from submission of the proposal to arrive at expected time point for commencement of the project.

Please provide enough justification for each head of expenditure (about 100 words for each)

BUDGET FOR MANPOWER

Designation (Number of persons)	Monthly Emoluments	BUDGET		
		1st year (m. m)	2 nd year (m.m)	Total (m.m)
Full Time	Master Trainer-cum- Technician – 1 @ Rs. 2,500/- p.m.	30,000.00	30,000.00	60,000.00
	Trained women Assistant – 1 @ Rs. 2,000/- p.m.	24,000.00	24,000.00	48,000.00
	Semiskilled helper – 2 (one man & one women) @ Rs. 1,000/- p.m.	24,000.00	24,000.00	48,000.00
Part Time				
Total		78,000.00	78,000.00	1,56,000.00

*m.m: Man months to be given within brackets before the budget amount.

BUDGET FOR CONSUMABLES

Description	BUDGET		
	1st year	2 nd year	Total
Items			
Energy, Water and Transportation etc.,	15,000.00	25,000.00	40,000.00
Stationary Chemicals	10,000.00	20,000.00	30,000.00
Part Time	-	-	-
Total	40,000.00	45,000.00	85,000.00

BUDGET FOR TRAVEL

Items		BUDGET		
		1st year	2 nd year	Total
Travel 1.	Local & Out of Station	25,000.00	35,000.00	60,000.00
Total		25,000.00	35,000.00	60,000.00

(International travel is not permitted)

BUDGET FOR PERMANENT EQUIPMENT

Sl. No	Name of Equipment Model	Estimated Cost*
1	Machinery and equipment	5,00,000.00
2	Building Structure	3,50,000.00
3	Consultancy & Training	1,00,000.00
4	Utensil and fixtures	1,00,000.00
5	Equipment for satellite unit	50,000.00
Total		11,00,000.00

* Include installation charges, inland transport, etc.
Budgetary quotations will be required in support of estimates.

NB. : After the approval of the project, installation charges, inland transport and budgetary quotations would be submitted by the project implementing agency.